Applicant : Robert W. Morris Attorney Docket No.: 30004-004US1

Serial No. : 10/565,570 Filed : July 21, 2006

Page : 2 of 10

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1. (Currently Amended) A method comprising:

speech according to a plurality of sequences of subword units representing the spoken event of interest, wherein the forming includes identifying accepting first query data representing one or more spoken instances of the spoken event of interest a query in a first set of audio signals, and representing each identified instance of the spoken event of interest in the specification using at least one of the plurality of sequences of subword units;

processing the first query data including determining a representation of the query that defines multiple sequences of subword units each representing the query;

accepting second speech data representing the unknown speech in a second audio signal; and

locating putative instances of the <u>spoken event of interest in the second audio</u>

<u>signal using the specification of the spoken event of interest, wherein the</u>

<u>locating includes identifying time locations of the second audio signal at</u>

<u>which the spoken event of interest is likely to have occurred based on a</u>

<u>comparison of the data representing the unknown speech with the</u>

<u>specification of the spoken event of interest. query in the second speech</u>

<u>data using the determined representation of the query.</u>

Applicant:

Robert W. Morris

Serial No.

10/565,570

Filed

July 21, 2006

Page : 3 of 10

2. (Currently Amended) The method of claim 1 wherein <u>forming the</u> <u>specification of the spoken event of interest comprises processing the query data includes</u> applying a computer-implemented speech recognition algorithm to <u>the query</u> data <u>representing the first set of audio signals</u>.

Attorney Docket No.: 30004-004US1

- 3. (Original) The method of claim 1 wherein the subword units include linguistic units.
- 4. (Currently Amended) The method of claim 2 wherein locating the putative instances includes applying a computer-implemented word spotting algorithm configured using the determined representation of the query specification of the spoken event of interest.
- 5. (Currently Amended) The method of claim 4 further comprising selecting processing parameter values of the speech recognition algorithm for application to the query data representing the first set of audio signals according to characteristics of the word spotting algorithm.
- 6. (Previously Presented) The method of claim 5 wherein the selecting of the processing parameter values of the speech recognition algorithm includes optimizing said parameters according to an accuracy of the word spotting algorithm.
- 7. (Previously Presented) The method of claim 5 wherein the selecting of the processing parameter values of the speech recognition algorithm includes selecting values for parameters including one or more of an insertion factor, a recognition search beam width, a recognition grammar factor, and a number of recognition hypotheses.
- 8. (Currently Amended) The method of claim 1 wherein determining the representation of the query specification of the spoken event of interest defines includes determining a network of the subword units.

Applicant : Robert W. Morris Attorney Docket No.: 30004-004US1

Serial No. : 10/565,570 Filed : July 21, 2006

Page : 4 of 10

9. (Currently Amended) The method of claim 8 wherein the <u>network of subword units is formed by multiple sequences of subword units that correspond to different paths through the network.</u>

- 10. (Currently Amended) The method of claim 1 wherein determining forming the representation of the query specification of the spoken event of interest includes determining an n-best list of recognition results.
- 11. (Currently Amended) The method of claim 10 wherein each of the multiple sequences sequence of subword units in the specification corresponds to a different one in the n-best list of recognition results.
- 12. (Currently Amended) The method of claim 1, further comprising wherein accepting the first query data includes accepting first audio data representing the spoken utterances of the query event of interest spoken by a user, and processing the first audio data to form the first query data a processed query.
- 13. (Currently Amended) The method of claim1, further comprising wherein accepting the first query data includes accepting a selection by a user of portions of stored data from the first set of audio signals, and processing the portions of the stored data to form the first query data a processed query.
- 14. (Previously Presented) The method of claim 13 further comprising, prior to accepting the selection by the user, processing the first set of audio signals according to a first computer-implemented speech recognition algorithm to produce the stored data.
- 15. (Previously Presented) The method of claim 14 wherein the first speech recognition algorithm produces data related to presence of the subword units at different times in the first set of audio signals.

Applicant:

Robert W. Morris

Serial No. : Filed :

10/565,570 July 21, 2006

Page

5 of 10

16. (Currently Amended) The method of claim 14, <u>further comprising wherein processing the query data includes</u> applying a second speech recognition algorithm to the <u>query data processed query</u>.

Attorney Docket No.: 30004-004US1

- 17. (Currently Amended) A computer-readable medium storing instructions for causing a processing system to:
 - form a specification of a spoken event of interest to be located in unknown speech
 according to a plurality of sequences of subword units representing the
 spoken event of interest, wherein the instructions for causing the
 processing system to form the specification include instructions for
 identifying accept first query data representing one or more spoken
 instances of the spoken event of interest a query in a first set of audio
 signals, and representing each identified instance of the spoken event of
 interest in the specification using at least one of the plurality of sequences
 of subword units;
 - process the first query data including determining a representation of the query that defines multiple sequences of subword unitseach representing the query;
 - accept $\frac{1}{2}$ second speech data representing $\frac{1}{2}$ unknown speech in a second audio signal; and
 - locate putative instances of the spoken event of interest in the second audio signal using the specification of the spoken event of interest, wherein the instructions for causing the processing system to locate the putative instances include instructions for identifying time locations of the second audio signal at which the spoken event of interest is likely to have occurred based on a comparison of the data representing the unknown speech with the specification of the spoken event of interest. query in the second speech data using the determined representation of the query.

Applicant :

Robert W. Morris

Serial No. : Filed :

10/565,570 July 21, 2006

Page

: 6 of 10

18. (Currently Amended) A system comprising:

a speech recognizer for processing first query data representing one or more spoken instances of a query in a first set of audio signals to form a specification of a spoken event of interest to be located in unknown speech according to a plurality of sequences of subword units representing the spoken event of interest, wherein the processing includes identifying one or more instances of the spoken event of interest in the first set of audio signals, and representing each identified instance of the spoken event of interest in the specification using at least one of the plurality of sequences of subword units;

Attorney Docket No.: 30004-004US1

- a data storage for receiving a data representation of the query the specification of the spoken event of interest from the speech recognizer, the data representation defining multiple sequences of subword units representing the query;
- a word spotter configured to use the data representation of the query specification of the spoken event of interest to locate putative instances of the query spoken event of interest in second speech data representing the unknown speech in a second audio signal.
- 19. (New) The system of claim 18, wherein the word spotter is further configured to identify time locations of the second audio signal at which the spoken event of interest is likely to have occurred based on a comparison of the data representing the unknown speech with the specification of the spoken event of interest.